UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 36

Application Number: 09/013,490
Filing Date: January 26, 1998
Appellant(s): TUZHILIN ET AL.

Gary Abelev
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 24, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 38-39, 41-59, 61-88 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,809,238	GREENBLATT et al.	9-1998
6,134,555	CHADHA et al.	10-2000
5,893,091	HUNT et al.	4-1999

Sistla, A.P. et al., "Temporal Conditions and Integrity Constraints in Active Database Systems", ACM SIGMOD, vol. 24 No. 2 (1995), pgs 269-280.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 38-39, 41-43, 50-59, 61-63, 70-88 are rejected under 35 U.S.C. 102(e) as being anticipated by Greenblatt et al., U.S. Patent No. 5,809,238 (hereafter referred to as Greenblatt).

Regarding claim 38, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network (probes 16, 18), the at least one instruction being executed on the network and requesting a performance of a monitoring operation to monitor the information on the network as a function of the predetermined criterion, the processing device is adapted to receive data from the network based on at least one result of the monitoring operations (col. 6, lines 8-18)

wherein the information includes at least one event which is used for detecting a change on the network (col. 10, lines 36-44).

Regarding dependent claim 39, Greenblatt taught the processing device provides the at least one result to at least one user (col. 6, lines 8-18).

Regarding dependent claim 41, Greenblatt taught the predefined criteria includes at least one condition (Figure 6).

Regarding claim 42, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network, the at least one instruction being executed on the network and requesting a performance of a monitoring operation to monitor the information on the network as a function of the predetermined criterion, the processing device is adapted to receive data from the network based on at least one result of the monitoring operation (col. 6, lines 8-18),

wherein the information includes at least one event and at least one condition, and wherein the predefined criterion is a rule-based criterion which enables the monitoring operation to monitor for the at least one event on the network and to check if a certain condition of the at least one condition is satisfied (Figure 6 and col. 13, line 48-col. 15, lines 61).

Regarding dependent claim 43, Greenblatt taught the rule-based criterion includes:

at least one of a WHEN portion and an IF portion, and a THEN portion (rule table of Figure 6), and

wherein the THEN portion includes a probing action which has at least one probing operator (col. 15, lines 5-27).

Regarding dependent claim 50, Greenblatt taught the monitoring operation is performed on a client station (col. 11, lines 43-53).

Regarding dependent claim 51, Greenblatt taught the processing device performs the monitoring operation (col. 12, lines 57-62, col. 13, lines 10-19).

Regarding claim 52, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network, the at least one instruction being executed on the network and requesting a performance of a monitoring operation to monitor the information on the network as a function of the predetermined criterion, the processing device is adapted to receive data from the network based on at least one result of the monitoring operations (col. 6, lines 8-18)

wherein the at least one result includes a copy of at least one monitored predicate (col. 10, lines 36-44).

Regarding claim 53, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network, the at least one instruction being executed on the network and requesting a performance of a monitoring operation to monitor the information on the network as a function of the predetermined criterion, the processing device is

adapted to receive data from the network based on at least one result of the monitoring operations (col. 6, lines 8-18)

wherein the at least one result includes a copy of a portion of at least one monitored predicate (col. 10, lines 36-44).

Regarding dependent claim 54, Greenblatt taught the monitoring operation is performed by exploring particular data on client sites which are connected to the network (col. 5, lines 26-31).

Regarding dependent claim 55, Greenblatt taught an atomic condition, and a combination of atomic conditions (rule table of Figure 6).

Regarding dependent claim 56, Greenblatt taught the at least one event is one of an instantaneous event and an event which extends over a period of time (col. 3, lines 45-50).

Regarding dependent claim 57, Greenblatt taught the WHEN portion is used to monitor for an occurrence of at least one event (col. 7, line 31-40).

1. The language of claims 58-59, 61-63, 70-77 is substantially the same as previously rejected claims 38-39, 41-43, 50-57. Therefore, claims 58-59, 61-63, 70-77 are rejected on the same rationale as previously rejected claims 38-39, 41-43, 50-57.

Regarding claim 78, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network, the at least one instruction being performed on the network and requesting a performance of a particular operation to continuously monitor the information on the network as a function of the predetermined criterion (col. 6, lines 8-18), the processing device is adapted to receive data from the network based on at least one result of the particular operation (col. 10, lines 36-44).

Regarding dependent claim 79, Greenblatt taught the at least one result is obtained when at least one condition is satisfied (col. 15, lines 15-27).

Regarding claim 80, Greenblatt taught a method for monitoring information on a network (col. 4, lines 8-11), comprising:

receiving a predefined criterion (col. 13, lines 48-62);

continuously monitoring the information on the network as a function of the predefined criterion, wherein the monitoring step being performed by executing at least one instruction on the network (col. 15, lines 5-27); and

receiving data from the network based on at least one result of the monitoring step (col. 15, lines 42-52).

Regarding dependent claim 81, Greenblatt taught further comprising the step of:

obtaining the at least one result when at least one condition is satisfied (col. 15, lines 15-27).

Regarding claim 82, Greenblatt taught an apparatus for monitoring information on a network (col. 4, lines 8-11), comprising:

a storage device storing a predefined criterion (rule table 34), and having a monitoring module thereon (rule processor 37); and

a processing device executing the monitoring module to transmit at least one instruction to the network, the at least one instruction being performed on the network and requesting a performance of a particular operation to regularly monitor the information on the network as a function of the predetermined criterion (col. 6, lines 8-18), the processing device is adapted to receive data from the network based on at least one result of the particular operation (col. 10, lines 36-44).

Regarding claim 83, Greenblatt taught a method for monitoring information on a network (col. 4, lines 8-11), comprising:

receiving a predefined criterion (col. 13, lines 48-62);

regularly monitoring the information on the network as a function of the predefined criterion, wherein the monitoring step being performed by executing at one instruction on the network (col. 15, lines 5-27); and

receiving data from the network based on at least one result of the monitoring step (col. 15, lines 42-52).

Regarding dependent claims 84 and 85, Greenblatt taught the at least one event is detected on the network (col. 7, lines 31-40).

Regarding claim 86, Greenblatt taught a software arrangement for monitoring information on a network which is capable of being executed by a processor, comprising:

a program which, when executed by the processor, is capable of performing the following steps:

a) receiving a predefined criterion (col. 14, lines 28-36),

b) transmitting at least one instruction to the network (launching data probe, col. 14, lines 49-55),

c) monitoring the information on the network as a function of the predefined criterion, wherein the monitoring step being performed by executing the at least one instruction on the network (col. 15, lines 1-20), and

d) receiving data from the network based on at least one result of the monitoring step (col. 15, lines 42-48).

Regarding dependent claims 87 and 88, Greenblatt taught the at least one event detects changes on the network (col. 10, lines 36-44).

Claim Rejections - 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 44 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Chadha et al., U.S. Patent No. 6,134,555 (hereafter referred to as Chadha).

Regarding dependent claims 44 and 64, Greenblatt taught a probing operator (probes 16, 18, col. 5, lines 15-19). However, Greenblatt does not specifically teach the probing operator includes a data mining query. Chadha taught a data mining query (col. 4, lines 4-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Chadha's data mining query in Greenblatt's probing operator would have improved system effectiveness. The motivation would have been glean more interesting information from the data collected in Greenblatt's data monitoring system.

Claims 45-47 and 65-67are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Hunt et al., U.S. Patent No. 5,893,091 (hereafter referred to as Hunt).

Regarding dependent claim 45, Greenblatt does not specifically teach the an IF portion. However, Hunt taught an IF portion includes the at least one condition is complex (col. 10, lines 34-39).

Regarding dependent claim 46, Hunt taught the at least one complex condition includes at least one of:

an atomic condition (single keyword), and a combination of atomic conditions (combination of keywords, col. 10, lines 43-48).

Regarding dependent claim 47, Hunt taught the atomic condition includes at least one literal portion (defined with Boolean operators, col. 13, lines 25-30).

As to claims 45-47, it would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Hunt Boolean conditions in Greenblatt's monitoring system would have improved system effectiveness. The motivation would have been to enable monitoring for more complex and interdependent events.

The language of claims 65-67 is substantially the same as previously rejected claims 45-47. Therefore, claims 65-67 are rejected on the same rationale as previously rejected claims 45-47.

Claims 48-49 and 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt and Hunt in view of A. Prasad Sistla et al., Temporal Conditions and Integrity Constraints in Active Database Systems (hereafter referred to as Sistla).

Regarding dependent claim 48, Greenblatt-Hunt does not specifically teach the atomic condition includes at least one binary past temporal operator. However, Sistla taught an atomic condition includes at least one binary past temporal operator (page 4, Section 4.1, paragraph 1).

Regarding dependent claim 49, Greenblatt-Hunt does not specifically teach the atomic condition includes at least one unary past temporal operator. However, Sistla taught atomic condition includes at least one unary past temporal operator (page 4, Section 4.1, paragraph 1).

As to claims 48-49, it would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Sistla's Past Temporal Logic in Greenblatt's monitoring system would have improved the monitoring system's effectiveness by incorporating more flexible monitoring criterion. The motivation would have been because Past Temporal Logic can be combined with any query language and proves improved condition-action statements used in active monitoring.

The language of claims 68-69 is substantially the same as previously rejected claims 48-49. Therefore, claims 68-69 are rejected on the same rationale as previously rejected claims 48-49.

(11) Response to Argument

Appellant argues - 1. Prior Art relied on by the Examiner

The Examiner relies on the Greenblatt, Chadha and Hunt Patents, as well as on the Sistla Publication in maintaining his final rejections.

The appellant is thanked for the description of the prior art of record relied upon by the examiner (see pages 7- 11 of the appeal brief). Any further comment on the relevance of the characterization of the prior art in question is reserved for specific reference to the claim language in question.

Appellant argues - 2. Relevant Case Law and Procedure(s)

The appellant is once again thanked for the relevant case law cited on pages 11-14 of the appeal brief.

Appellant argues - Appellants respectfully assert that the Greenblatt Patent in no way discloses that at least one instruction is transmitted to the network and executed on such network, as explicitly recited in independent claims 38, 52, 58, 72, 78, 80, 82, 83 and 86.

Greenblatt taught "... a DataProbe may include address and inquiry instructions, so that when DataProbe is initiated or launched , the DataProbe transfers a request initiating the operation of a data collection application ... and the return of the resultant data to the DataServer platform for return to the user in the form of one or more rows or columnar data ..." (column 5, lines 52-62) Explicitly, Greenblatt taught the DataProbe comprises "inquiry instructions" and it is "launched" (i.e. transferred to the network).

Appellant argues - Indeed, the Greenblatt Patent nowhere mentions that any monitoring or determination can be performed by executing at least one instruction on the network.

Greenblatt explicitly taught a DataProbe comprises "inquiry instructions" and when launched the DataProbe transfers a "request initiating the operation of a data collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", DataServer 14 provides " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - On the contrary, the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred. Thus, the probe 18 and the filter 36 of the Greenblatt Patent perform the determination of these conditions locally (which was apparently equated by the Examiner to the monitoring operation), but not on the network 12.

Greenblatt explicitly taught a DataProbe comprises "inquiry instructions" and when launched the DataProbe transfers a "request initiating the operation of a data collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", DataServer 14 provides " on the network" and the "operation of data collection" provides the monitoring.

Appellant agues - Accordingly, the Greenblatt Patent does not teach or suggest, much less disclose that such instruction transmitted to the network is executed on the network, especially so as to request the performance of the monitoring operation to monitor the information on the network, as recited in independent claims 38, 52, 58, 72, 78, 80, 82, 83 and 86 of the above-referenced application.

Greenblatt explicitly taught a DataProbe comprises "inquiry instructions" and when launched the DataProbe transfers a "request initiating the operation of a data collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer

14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", DataServer 14 provides " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - However, the Examiner does not point to any section of the Greenblatt Patent as disclosing the execution of any instructions on the network which was transmitted to the network, much less so as to request the performance of the monitoring operation to monitor the information on the network, as recited in independent claims 38, 52, 58, 72, 78, 80, 82, 83 and 86. The Greenblatt Patent does not provide any disclosure that any device, much less that the DataProbe 18 can transmit any instruction to the network which would be executed on such network.

Greenblatt taught "... a DataProbe may include address and inquiry instructions, so that when DataProbe is initiated or launched , the DataProbe transfers a request initiating the operation of a data collection application ... and the return of the resultant data to the DataServer platform for return to the user in the form of one or more rows or columnar data ..." (column 5, lines 52-62) Explicitly, Greenblatt taught the DataProbe comprises "inquiry instructions" and it is "launched" (i.e. transferred to the network). When launched the DataProbe transfers a "request initiating the operation of a data

collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", DataServer 14 provides " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - Indeed, even if the DataProbe 18 of the Greenblatt Patent may execute instructions for monitoring data on the network, because the probes 16 and 18 are part of the DataServer 14, these probes 16 and 18 are executing the instructions on the server 14, and not transmitting any instructions to the network to be executed on the network.

Greenblatt taught "... a DataProbe may include address and inquiry instructions, so that when DataProbe is initiated or launched , the DataProbe transfers a request initiating the operation of a data collection application ... and the return of the resultant data to the DataServer platform for return to the user in the form of one or more rows or columnar data ..." (column 5, lines 52-62) Explicitly, Greenblatt taught the DataProbe comprises "inquiry instructions" and it is "launched" (i.e. transferred to the network). When launched the DataProbe transfers a "request initiating the operation of a data

collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", the computer network 10 provides DataServer 14 " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - In addition, at least because the Greenblatt Patent does not disclose the above-mentioned monitoring operation recited in Appellants' independent claims 38, 52, 58, 72, 78, 80, 82, 83 and 86, the Greenblatt Patent also does not disclose that the data is received from the network based on at least one result of the monitoring operation, as also recited in these independent claims. Greenblatt taught "... a DataProbe may include address and inquiry instructions, so that when DataProbe is initiated or launched , the DataProbe transfers a request initiating the operation of a data collection application ... and the return of the resultant data to the DataServer platform for return to the user in the form of one or more rows or columnar data ..." (column 5, lines 52-62) Explicitly, Greenblatt taught the DataProbe comprises "inquiry instructions" and it is "launched" (i.e. transferred to the network). When launched the DataProbe transfers a "request initiating the operation of a data

collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", computer network 10 provides DataServer 14 " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - In the Final Office Action dated November 19, 2002, the Examiner believes that the Greenblatt Patent discloses that "[d]ata collected records (i.e., provides a copy) results of the monitored predicate, col. 6, lines 45-50. (See Final Office Action, pages 11-12, paragraph 7). In this particular section of the Greenblatt Patent, it is indicated that the DataServer 14 permits data to be returned to a user application if and only if a predicate logic test is applied to the data collected by the data probe is true, that is, only if the data has achieved the predetermined predicate logic threshold. (See Greenblatt Patent, column 6, lines 45-50). Thus, the Data Server 14 returns the data to a user application based on the test collected by the data probe - the data is already received from the network by the data probe, and only thereafter the test is performed thereon. In clear contract, according to Appellants' invention recited in

independent claims 38, 52, 58, 72, 78, 80, 82, 83 and 86, the data is received from the network based on the results of the monitoring operation, and therefore, the receipt of the data from the network is based on the result(s). However, in Greenblatt Patent, the data is not received from the network based on any particular result(s).

Greenblatt's Summary of Invention directly contradicts appellant's assertion. "In accordance with another aspect of the present invention, the event testing as well as the predicate testing is performed by the DataServer. A probe is launched to collect the data required by the predicate test. Thereafter a test to determine if the event has occurred is performed by the DataServer rather than the user application and if and only if the DataServer event test was positive, indicating that the event has occurred because the predicate test was positive, would the user application be notified so that the user application could collect the data." (column 2, lines 56-65) Greenblatt explicitly taught the computer network 10 comprises DataServer 14 and transport network 12 (column 4, lines 23-28). Upon a predicate test being positive the results are notified to the user application U1 which communicates with the DataServer 14 via transport network 12 (i.e. a network) (column 5, lines 1-4).

Appellant argues - In addition, independent claims 42 and 62 also recite that the information includes at least one event and at least one condition. In the Office Action dated April 24, 2002, the Examiner apparently points to column 13, line 48 through column 16, line 61, and Fig. 6 of the Greenblatt Patent for disclosing this

recitation. However, the Greenblatt Patent only checks if a particular condition is true (e.g., CPU_UTIL > 95%), but does not monitor both the event and the condition, as recited in independent claims 42 and 62.

Greenblatt explicit states in Greenblatt's Summary of Invention. "In accordance with another aspect of the present invention, the event testing as well as the predicate testing is performed by the DataServer. A probe is launched to collect the data required by the predicate test. Thereafter a test to determine if the event has occurred is performed by the DataServer rather than the user application and if and only if the DataServer event test was positive, indicating that the event has occurred because the predicate test was positive, would the user application be notified so that the user application could collect the data." (column 2, lines 56-65) The predicate testing is taught to be conditional testing required by appellant's claim. Greenblatt taught the event and condition as well on column 7, lines 27-31. Essentially, the event is reported when the predicate condition is met.

Appellant argues - Then, in the Final Office Action dated November 19, 2002, the Examiner points to column 3, line 39-44 as allegedly disclosing that events being composed of rule statements including conditions, and then states that the Greenblatt Patent "monitors both simultaneously." (See Final Office Action, page 12, paragraph 8). In the section of the Greenblatt Patent referred to by the Examiner, it is indicated that a nested rule statement may be stored by a rule name in a rule table, with the nested rule statement referencing an additional rule

statement by rule name, and processing each nested rule statement to collect data specified by each rule statement referenced thereby. (See Greenblatt Patent, column 3, lines 39-44). Thus, accordingly the disclosure of the Greenblatt Patent, a condition is specified to monitor an event that is the result of such condition, i.e., does not monitor both the event(s) and the condition, which is clearly contrary to the recitations of independent claims 42 and 62.

Greenblatt explicitly states in Greenblatt's Summary of Invention. "In accordance with another aspect of the present invention, the event testing as well as the predicate testing is performed by the DataServer. A probe is launched to collect the data required by the predicate test. Thereafter a test to determine if the event has occurred is performed by the DataServer rather than the user application and if and only if the DataServer event test was positive, indicating that the event has occurred because the predicate test was positive, would the user application be notified so that the user application could collect the data." (column 2, lines 56-65) The predicate testing is taught to be conditional testing required by appellant's claim.

Appellant argues - In addition, Appellants' invention of claims 43 and 63 recite that a THEN portion (of a rule-based criteria) includes a probing action which has at least one probing operator. The "THEN" portion of the notification criteria of the Greenblatt Patent is arguably the parameters of the "SELECT" clause. In clear contrast to the teachings of the Greenblatt Patent, independent claims 43 and 63 explicitly recite that the THEN portion includes a probing action.

The examiner has not asserted that the parameters of the "SELECT" clause are the "THEN" portion. The rejection asserts that the "a probing action" is taught in column 15, lines 5-27, note this is "exploratory investigation" as argued by appellant. The "THEN" action is provided by step "14. DataServer 14 invokes DataProbe 18 to perform data collection in accordance with recursive SQL statement." (column 15, lines 18-20) This invoking of DataProbe 18 provides the "exploratory investigation" asserted by appellant. Note that appellant's claim language in this case includes alternative conditions which have also been properly rejected.

Appellant argues - Appellants respectfully assert that this recited probing action cannot be equated to the parameters of the "SELECT" clause of an SQL query of the Greenblatt Patent. This is because these SELECT clause parameters do not perform any "probing operation", or include any "probing action". However, Appellants' claimed "probing" operation can be equated to "an exploratory investigation". Thus, at least for this additional reason and the reasons presented above, the Greenblatt Patent in no way teaches or suggests, much less discloses the subject matter recited in claims 43 and 63. Indeed, there is absolutely no disclosure in the Greenblatt Patent of any probing action, especially as being included in the THEN portion of the notification criteria.

To the extent the language of the claim requires the "probing operation" is encompassed by DataProbes. The DataProbes prove an "exploratory investigation" of network data. However, the examiner has not asserted that the parameters of the

"SELECT" clause are the "THEN" portion. The rejection asserts that the "a probing action" is taught in column 15, lines 5-27, note this is "exploratory investigation" as argued by appellant. The "THEN" action is provided by step "14. DataServer 14 invokes DataProbe 18 to perform data collection in accordance with recursive SQL statement." (column 15, lines 18-20) This invoking of DataProbe 18 provides the "exploratory investigation" asserted by appellant.

Appellant argues - In addition, independent claims 53 and 73 also recite that the result includes a copy of a portion of at least one monitored predicate. In the Office Action dated April 24, 2002, the Examiner apparently points to column 10, lines 36-44 for disclosing this subject matter. However, contrary to the Examiner's belief, the Greenblatt Patent does not provide any result that includes a copy of a portion of the monitored predicate, as recited in independent claims 53 and 73. Indeed, as provided in column 11, lines 20-35 of the Greenblatt Patent, the DataProbe 18 collects the samples (i.e., rows/records) from the network (i.e., data sources P1, ... P„), but does not obtain the entire tables (apparently equated by the Examiner to Appellants' predicates). These samples (rows/records) of the Greenblatt Patent then are processed (i.e., filtered and aggregated into tables) by the DataServer 14, and the tables are returned to the applications (U1, ..., Un). Accordingly, the Greenblatt Patent does not disclose that the result includes a copy of a portion of at least one monitored predicate, as explicitly recited in independent claims 53 and 73.

Greenblatt explicit states – "As a result, however, of the launching of DataProbe 16, the requested data one collected by the networked platform P1 data collection application is then returned via transport network 12 ..." (column 6, lines 14-18). Greenblatt further taught the returned result include a copy of the monitored predicate. "A probe is launched to collect the data required by the predicate test. Thereafter a test to determine if the event has occurred is performed ...an event has occurred because the predicate test was positive, would the user application be notified so the user application could collect the data." (column 2, lines 56-65) The data returned produced the positive predicate test, which by the way is the monitored test predicate.

Appellant argues - In addition, Appellants' invention of claims 43 and 63 recite that the event includes an atomic event and/or a combination of events. In the Office Action dated April 24, 2002, the Examiner believes that the Greenblatt Patent discloses an atomic condition and a combination of atomic conditions in the rule table of Fig. 6. Then, in the Finial Office Action dated November 19, 2002, the Examiner points to column 12, lines 63-67 of the Greenblatt Patent as allegedly disclosing such subject matter. However, the section of the Greenblatt Patent pointed to by the Examiner in the Final Office Action only discloses that a representation of a series of rules are entered into a RuleBase Table 34, but does not even mention, much less disclose that the event includes an atomic event and/or a combination of events. Thus, it is respectfully asserted that at least for

this additional reason and the reasons presented above, the Greenblatt Patent in no way discloses the subject matter recited in claims 55 and 75.

The RuleBase Table 34 provides for a combination of rules, i.e. nested rules, see column 12, lines 63-67. The rules are composed of atomic events evidenced by the event function EVENT(), column 8, lines 42-52. Thus, Greenblatt taught "an atomic event and a combination of atomic events."

Appellant argues - In addition, Appellants' invention of claims 57 and 77 recite that the WHEN portion of the rule-based criterion is used to monitor for an occurrence of at least one event. In the Office Action dated April 24, 2002, the Examiner believes that the Greenblatt Patent discloses an atomic condition and a combination of atomic conditions in column 7, lines 31-40 thereof. However, Appellants respectfully assert that the Greenblatt Patent discloses the "WHERE" clause, but not the "WHEN" clauses. Indeed, Appellants' claimed invention recited in claims 57 and 77 includes "WHEN" clauses that are time dependent and deals with event, and not with conditions, while the "WHERE" clauses of the Greenblatt Patent are not time dependent. Thus, at least for this additional reason and the reasons presented above, the Greenblatt Patent in no way discloses the subject matter recited in claims 57 and 77.

There is no "WHERE" clause in the column 7. Appellant's assertion of there being a "WHERE" clause is misplaced. Appellant has missed that "WHEN" condition of

PREDICATE: CPU_UTIL>95% is true the event CPU_BUSY is true (see column 7, lines 9-31). Greenblatt's "WHEN" is constructed through use of the events and predicates.

Appellant argues - In addition, Appellants' invention of claims 84 and 85 recite that the event is detected on the network. As discussed above with reference to the independent claims of the above-referenced application, the Greenblatt Patent's probe 18 or the filter 36 detect any change of condition on the DataServer 14, and not on the network 12. (See Greenblatt Patent, Fig. 1).
In the Final Office Action dated November 19, 2002, the Examiner believes that the Greenblatt Patent discloses that the events are "[d]etected on from network samples," and points to column 11, lines 43-53 thereof. This section of the Greenblatt Patent only discloses that in the case when event filtering is required but provided only by the application, the user application would be required to determine if the event has occurred by testing if Rowcount() in DataBuffer 39 was greater than zero. However, such event filtering operation of the Greenblatt Patent is only performed by the probes 16 and 18 of the DataServer 14, but not transmitted to the network and then executed on the network. Accordingly, the Greenblatt Patent does not disclose that the events are detected on the network, as recited in claims 84 and 85.

Greenblatt taught "... a DataProbe may include address and inquiry instructions, so that when DataProbe is initiated or launched , the DataProbe transfers a request initiating the operation of a data collection application ... and the return of the resultant data to

the DataServer platform for return to the user in the form of one or more rows or columnar data ..." (column 5, lines 52-62) Explicitly, Greenblatt taught the DataProbe comprises "inquiry instructions" and it is "launched" (i.e. transferred to the network). When launched the DataProbe transfers a "request initiating the operation of a data collection application" (i.e. execution). (column 5, lines 52-62). Greenblatt explicit states – "In accordance with the present invention, computer network 10 further includes DataServer 14 ..." (column 4, lines 23-24). Thus, Greenblatt taught at least DataServer 14 is "on the network". Further, Greenblatt taught "DataServer 14 includes a plurality of probes .." (column 5, lines 33-34). Appellant's states "... the probe 18 and the filter 36 of the DataServer 14 are responsible for determining whether certain conditions have occurred..." In conclusion, the DataProbe provides "executing at least one instruction", the computer network 10 provides DataServer 14 " on the network" and the "operation of data collection" provides the monitoring.

Appellant argues - In addition, Appellants' invention of claims 43 and 63 recite that the probing operator includes a data mining query. In the Office Action dated April 24, 2002, the Examiner admits that the Greenblatt Patent does not disclose that the probing operator includes a data mining query, but alleges that the Chadha Patent teaches a data mining query. (See Office Action, dated April 24, 2002, page 9, lines 5-7). The Examiner points to column 4, lines 4-28 of the Chadha Patent in support of such belief. However, contrary to the Examiner's allegation, Appellants respectfully assert that there is absolutely no teaching or

suggestion in these portions of the Chadha Patent or in any other section thereof of the probing operator which includes a data mining query.

Chadha taught "[d]ata mining is the process of finding interesting patterns in data. Data mining often involves datasets with a large number of attributes. Many of the attributes are redundant and/or simply irrelevant to the purposes of discovering interesting patterns." (column 1, lines 29-33) "There is a need in the art for improved dimension reduction using association rules for use in data mining with large datasets." (column 2, lines 46-48). Chadha's invention provides a solution to this problem. Greenblatt taught "[a]s the computer network systems to be monitored grow in size and complexity, the data to be monitored and tested grow in the same way. What are needed are improvements in the structure of database systems and monitoring applications to reduce the substantial computational time, and other overhead requirements, of conventional monitoring." (column 1, lines 55-61). Greenblatt's system comprises a large dataset essentially and as such would benefit from the advantages of Chadha's data mining query.

Appellant argues - In addition, Appellants respectfully assert that the Greenblatt patent provides absolutely no teaching, suggestion, motivation or incentive to utilize data mining techniques in its monitoring system. Indeed, there is no need to use any data mining techniques for the procedure executed by the probe 18 and the filter 36 of the Greenblatt Patent. Thus, the disclosure of the Greenblatt

Patent would not teach or suggest to one having ordinary skill in the art to combine it with prior art data mining systems or methods.

Chadha taught "[d]ata mining is the process of finding interesting patterns in data. Data mining often involves datasets with a large number of attributes. Many of the attributes are redundant and/or simply irrelevant to the purposes of discovering interesting patterns." (column 1, lines 29-33) "There is a need in the art for improved dimension reduction using association rules for use in data mining with large datasets." (column 2, lines 46-48). Chadha's invention provides a solution to this problem. Greenblatt taught "[a]s the computer network systems to be monitored grow in size and complexity, the data to be monitored and tested grow in the same way. What are needed are improvements in the structure of database systems and monitoring applications to reduce the substantial computational time, and other overhead requirements, of conventional monitoring." (column 1, lines 55-61). Greenblatt's system comprises a large dataset essentially and as such would benefit from the advantages of Chadha's data mining query.

Appellant argues - Claims 45-47 depend from claims 43, and claims 65-67 depend from claim 63. Accordingly, claims 45-47 and 65-67 are believed to be patentable for the same reasons as provided above with reference to claims 43 and 63. This is also because the Hunt Patent does not cure the deficiencies of the Greenblatt Patent to teach or suggest Appellants' invention as recited in claims 43 and 63, nor does the Examiner contends that it does.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation would have been to enable monitoring for more complex and interdependent events. Hunt there was a need in the art for a more "coherent method for the user to identify what information he wants to receive." (column, 4, lines 17-18) Hunt's technology provides a solution to this problem through the use of more complex Boolean operators.

Appellant argues - Claims 48 and 49 depend from claims 46, and claims 68 and 69 depend from claim 66. Accordingly, claims 48, 49, 68 and 69 are believed to be patentable for the same reasons as provided above with reference to claims 46 and 66. This is also because the Sistla Publication does not cure the deficiencies of the Greenblatt Patent to teach or suggest Appellants' invention as recited in claims 46 and 66, nor does the Examiner contends that it does.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation would have been because Past Temporal Logic can be combined with any query language and proves improved condition-action statements used in active monitoring. Sistla taught a need to eliminate the distinctions between the event and the condition parts in rules and replace both of them by the notion of temporal condition (page 1, paragraph 4). This allows the users to request information with satisfies "conditions that involve both, events and database states, and their evolution over time." (page 1, page 4) Thus, benefiting Greenblatt's system of active monitoring.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,
Patrice Winder
Patrice L Winder
Primary Examiner
Art Unit 2145

plw
July 14, 2003

Conferees

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER

Zarni Maung

LARRY D. DONAGHUE
PRIMARY EXAMINER

Larry Donaghue

BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112